In other embodiments, chemically modified bioactive factors are contemplated. A polypeptide may be chemically modified to create derivatives by forming covalent or aggregrative conjugates with other chemical moieties, such as glycosyl groups, lipids, phosphate, acetyl groups and the like. Covalent derivatives may be prepared by linking the chemical moieties to functional groups on amino acid side chains or at the N-terminus or at the C-terminus of the polypeptide. For instance, a bioactive factor can be generated which includes a moiety, other than sequences naturally associated with the protein, that binds a component of the extracellular matrix and enhances localization of the analog to cell surfaces. For example, sequences derived from the fibronectin "type-III repeat", such as a tetrapeptide sequence R-G-D-S (SEQ ID NO:4) (Pierschbacher et al. (1984) *Nature* 309:30-3; and Kornblihtt et al. (1985) *EMBO* 4:1755-9) can be added to a polypeptide factor to support attachment of the chimeric molecule to a cell through binding ECM components (Ruoslahti et al. (1987) *Science* 238:491-497; Pierschbacheret al. (1987) *J. Biol. Chem.* 262:17294-8.; Hynes (1987) *Cell* 48:549-54; and Hynes (1992) *Cell* 69:11-25).

We believe that we have appropriately provided for fees due in connection with this submission, however, if there are any other fees due in connection with the filing of this Response, please charge the fees to our **Deposit Account No. 06-1448**. If there are any questions after review of this paper, the Examiner can contact the undersigned as (617) 832-1000.

Respectfully submitted,
FOLEY, HOAG, & ELIOT

December 5, 2001

John D. Quisel
Reg. No. 47,874
Agent for Applicants

Patent Group
Foley, Hoag & Eliot LLP
One Post Office Square
Boston, MA 02109-2170
Tel: (617) 832-1000
FAX: (617) 832-7000